

Haltech E8 – E11v2 ECUs



Racing Data Power

INTRODUCTION

AIM has developed special applications for many of the most popular ECUs: by special applications we mean user-friendly systems which allow to easily connect your ECU to our high tech data loggers: user needs only to install harness between the **logger** and the ECU.

Once connected, the logger displays (and/or records, depending on the logger and on the ECU data stream and configuration) values like RPM, engine load, throttle position (TPS), air and water temperatures, battery voltage, speed, gear, lambda value (air/fuel ratio) analog channels...

All AIM loggers include – free of charge – **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

Warning: once the ECU is connected to the logger, it is necessary to set it in the logger configuration in Race Studio 2 software.

Select Manufacturer "AIM" Model "CAN".

Refer to Race Studio Configuration user manual for further information concerning the loggers configuration.

Warning: for any further information concerning ECU firmware/software settings and/or upgrading it is always recommended to address to the ECU dealer.

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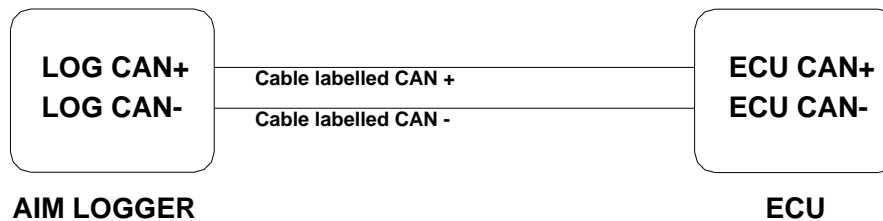
Chapter 1 – Haltech ECU models

This tutorial refers to the following Haltech ECUs:

- Haltech E8
- Haltech E11V2

Chapter 2– CAN communication Setup

Haltech E8 – E11V2 ECUs are equipped with a CAN communication setup used to communicate parameters to an external logger.



Chapter 3 – Connection to AIM loggers

Haltech E8 – E11V2 ECUs are equipped with 2 connectors – named A and B – used to communicate parameters to an external data logger. The connectors are equipped respectively with 34 pins – A connector and 26 pins – B connector.

To connect AIM loggers to ECU:

- connect AIM cable labelled CAN+ with pin 23 of the B connector.
- connect AIM cable labelled CAN- with pin 24 of the B connector.

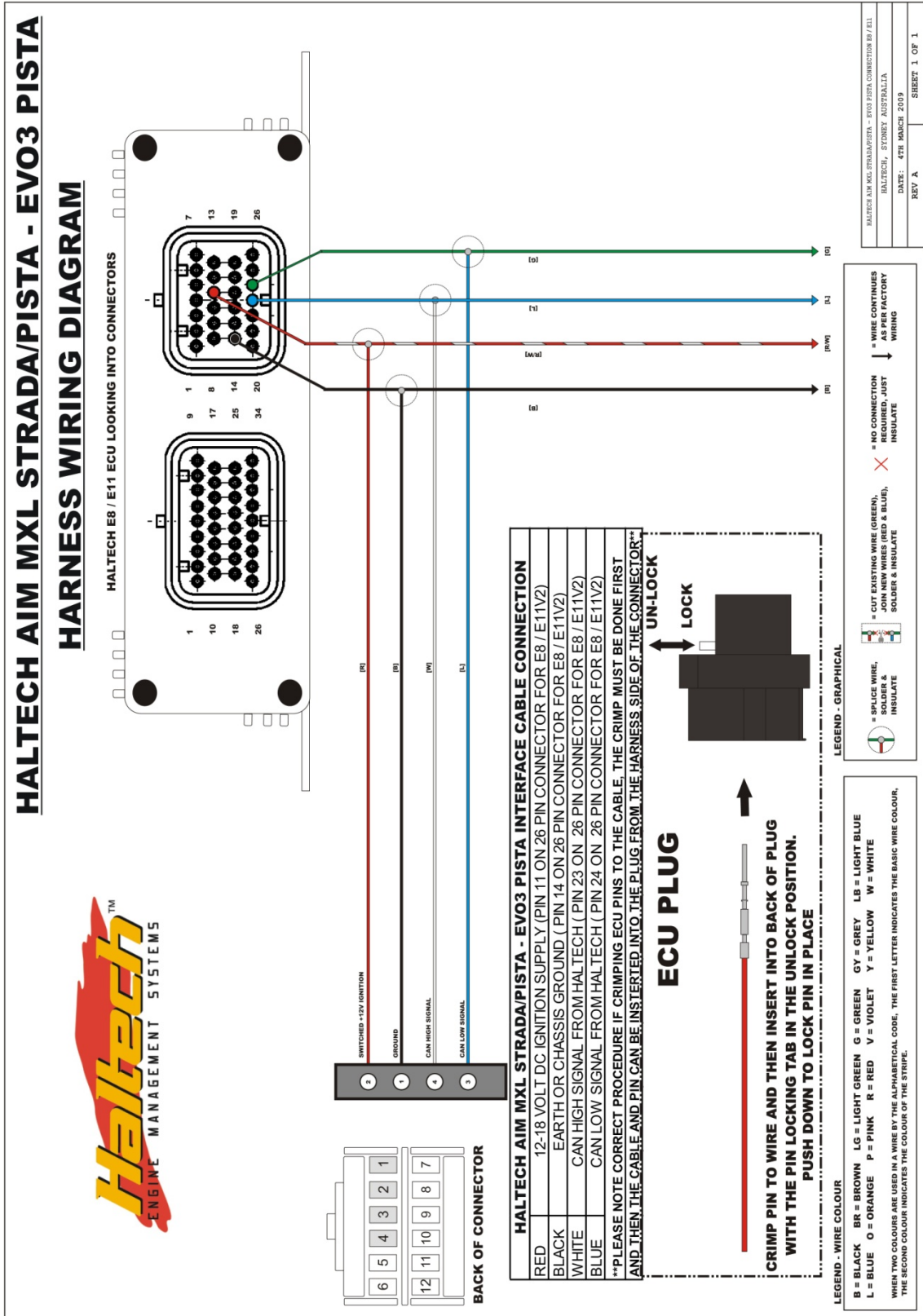
**Note: GND e Vbatt connections depend on logger type.
Refer to technical drawing for further information about the connections.**

Chapter 4 – Communication protocol

Haltech E8 – E11V2 ECUs use AIM proprietary CAN BUS. Channels received by those ECUs are:

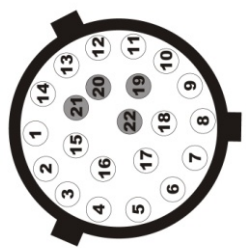
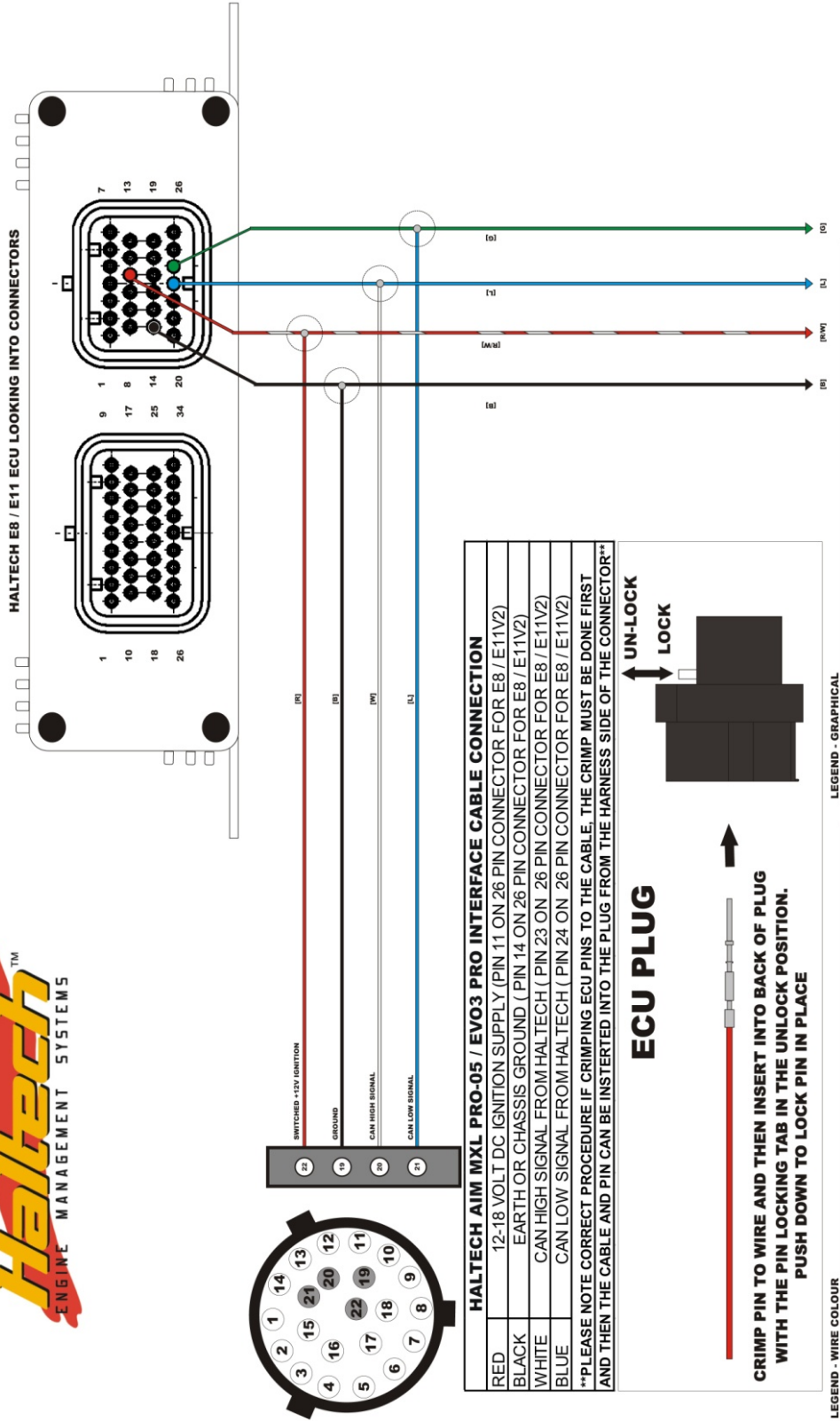
ID	CHANNEL NAME	FUNCTION
ECU_1	AIM_RPM	RPM
ECU_2	AIM_WHEELSPEED	Vehicle speed
ECU_3	AIM_OILPRESS	Oil pressure
ECU_4	AIM_OILTEMP	Oil temperature
ECU_5	AIM_WATERTEMP	Water temperature
ECU_6	AIM_FUELPRESS	Fuel pressure
ECU_7	AIM_BATTVOLT	Battery voltage
ECU_8	AIM_TPS	Throttle position sensor
ECU_9	AIM_MAP	Manifold air pressure
ECU_10	AIM_AIRTEMP	Air temperature
ECU_11	AIM_EXHAUST_TEMP	Exhaust temperature
ECU_12	AIM_LAMBDA	Lambda value
ECU_13	AIM_FUELTEMP	Fuel temperature
ECU_14	AIM_GEAR	Engaged gear
ECU_15	AIM_ERRORS	Error signal

Appendix 1 – Haltech MXL Strada/Pista – EVO3 pista wiring diagram



Appendix 2 – Haltech MXL Pro05 / EVO3 Pro wiring diagram

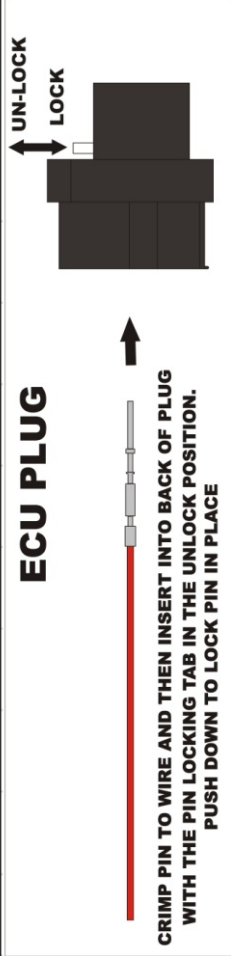
HALTECH AIM MXL PRO-05 / EVO3 PRO HARNESS WIRING DIAGRAM



HALTECH AIM MXL PRO-05 / EVO3 PRO INTERFACE CABLE CONNECTION

RED	12-18 VOLT DC IGNITION SUPPLY (PIN 11 ON 26 PIN CONNECTOR FOR E8 / E11V2)
BLACK	EARTH OR CHASSIS GROUND (PIN 14 ON 26 PIN CONNECTOR FOR E8 / E11V2)
WHITE	CAN HIGH SIGNAL FROM HALTECH (PIN 23 ON 26 PIN CONNECTOR FOR E8 / E11V2)
BLUE	CAN LOW SIGNAL FROM HALTECH (PIN 24 ON 26 PIN CONNECTOR FOR E8 / E11V2)

****PLEASE NOTE CORRECT PROCEDURE IF CRIMPING ECU PINS TO THE CABLE. THE CRIMP MUST BE DONE FIRST AND THEN THE CABLE AND PIN CAN BE INSERTED INTO THE PLUG FROM THE HARNESS SIDE OF THE CONNECTOR****



LEGEND - WIRE COLOUR

B = BLACK BR = BROWN LG = LIGHT GREEN G = GREEN GY = GREY LB = LIGHT BLUE
L = BLUE O = ORANGE P = PINK R = RED V = VIOLET Y = YELLOW W = WHITE

WHEN TWO COLOURS ARE USED IN A WIRE BY THE ALPHABETICAL CODE, THE FIRST LETTER INDICATES THE BASIC WIRE COLOUR, THE SECOND COLOUR INDICATES THE COLOUR OF THE STRIPE.

LEGEND - GRAPHICAL

= SPLICE WIRE, SOLDER & INSULATE

= CUT EXISTING WIRE (GREEN), JOIN NEW WIRES (RED & BLUE), SOLDER & INSULATE

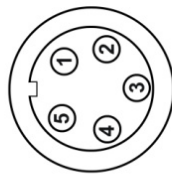
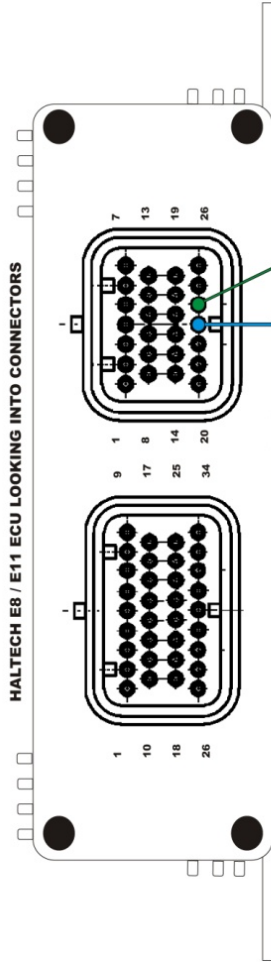
= NO CONNECTION REQUIRED, JUST INSULATE

= WIRE CONTINUES AS PER FACTORY WIRING

HALTECH AIM MXL PRO-05 / EVO3 PRO CONNECTOR (E8 / E11)
HALTECH, SYDNEY AUSTRALIA
DATE: 4TH MARCH 2009
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Appendix 3 – Haltech EVO4 wiring diagram

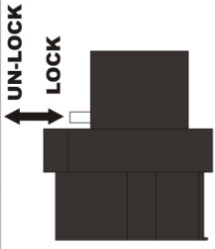
HALTECH AIM EVO4 HARNESS WIRING DIAGRAM



CAN HIGH SIGNAL
CAN LOW SIGNAL

HALTECH AIM EVO4 INTERFACE CABLE CONNECTION	
RED	12-18 VOLT DC IGNITION SUPPLY (PIN 11 ON 26 PIN CONNECTOR FOR E8 / E11V2)
BLACK	EARTH OR CHASSIS GROUND (PIN 14 ON 26 PIN CONNECTOR FOR E8 / E11V2)
WHITE	CAN HIGH SIGNAL FROM HALTECH (PIN 23 ON 26 PIN CONNECTOR FOR E8 / E11V2)
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PLEASE NOTE CORRECT PROCEDURE IF CRIMPING ECU PINS TO THE CABLE, THE CRIMP MUST BE DONE FIRST AND THEN THE CABLE AND PIN CAN BE INSERTED INTO THE PLUG FROM THE HARNESS SIDE OF THE CONNECTOR



ECU PLUG



LEGEND - WIRE COLOUR

B = BLACK BR = BROWN LG = LIGHT GREEN G = GREEN GY = GREY LB = LIGHT BLUE
L = BLUE O = ORANGE P = PINK R = RED V = VIOLET Y = YELLOW W = WHITE
WHEN TWO COLOURS ARE USED IN A WIRE BY THE ALPHABETICAL CODE, THE FIRST LETTER INDICATES THE BASIC WIRE COLOUR, THE SECOND COLOUR INDICATES THE COLOUR OF THE STRIPE.

LEGEND - GRAPHICAL



○ = SPLICED WIRE, SOLDER & INSULATE
⊗ = CUT EXISTING WIRE (GREEN), JOIN NEW WIRES (RED & BLUE), SOLDER & INSULATE
⊗ = NO CONNECTION REQUIRED, JUST INSULATE

→ = WIRE CONTAINERS AS PER FACTORY WIRING

HALTECH AIM EVO4 CONNECTION B8 / E11
HALTECH, STONEY AUSTRALIA
DATE: 4TH MARCH 2009
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